What is claimed is:

1   1. A process carried out in a usage-measuring server in a system to license resources from

2 different vendors as a suite on a usage-basis to set up a data structure which supports said suite-

3 based, usage-based licensing, comprising:

4   storing one or more provisioning item data entries in a data structure in a usage-

5 measuring server, each said data entry representing a provisioning item which records the

6 licensing terms of a suite of resources from one or more different sources or vendors, each

7 provisioning item data entry containing a pointer to the one or more resources which are available

8 for licensing under said provisioning item data entry;

9   creating and storing a data entry representing an authorization node when a

10 customer who wishes to use the resources in a suite takes a license under the particular

11 provisioning item which records the licensing terms of said suite, and storing a pointer in said

12 authorization node which points to the data structure representing the provisioning item which

13 records the terms of the license said customer took;

14   creating and storing a data entry representing a resource authorization node for each

15 resource licensed under a license represented by said authorization node and storing a pointer in

16 each said resource authorization node so created that points to the authorization node

17 representing said license;

18   creating a usage data buffer for each said resource authorization node so created

19 and storing a pointer in each said resource authorization node that points to a corresponding

20 usage data buffer which is to be used to store usage data for the resource correponding to said

21 resource authorization node, and storing usage data for the resource in a licensed suite which

22 corresponds to said usage data buffer in said usage data buffer.

1   2. A process carried out in a usage-measuring server in a system to license resources from

2 different vendors as a suite on a usage-basis to set up a data structure which supports said suite-

3 based, usage-based licensing and to use said data structure to implement usage-based licensing,

4 comprising:

5   storing one or more provisioning item data entries in a data structure in a usage-

6 measuring server, each said data entry representing a provisioning item which records the

7 licensing terms of a suite of resources from a plurality of different sources or vendors, each

8 provisioning item data entry containing a pointer to the one or more resources which are available

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9   for licensing under said provisioning item data entry;

10   creating and storing a data entry representing an authorization node when a

11   customer who wishes to use the resources in a suite takes a license under the particular

12   provisioning item which records the licensing terms of said suite, and storing a pointer in said

13   authorization node which points to the data structure representing the provisioning item which

14   records the terms of the license said customer took;

15   creating and storing a data entry representing a resource authorization node for each

16   resource licensed under a license represented by said authorization node and storing a pointer in

17   each said resource authorization node so created that points to the authorization node

18   representing said license;

19   creating a usage data buffer for each said resource authorization node so created

20   and storing a pointer in each said resource authorization node that points to a corresponding

21   usage data buffer which is to be used to store usage data for the resource correponding to said

22   resource authorization node; and

23   storing usage data for each resource licensed under a usage-based suite license in

24   the appropriate usage data buffer;

25   converting said usage data for each resource to metrics which provide an indication

26   of the amount of use of each licensed resource.

1   3. A process carried out in a usage-measuring server in a system to license resources from

2   different vendors as a suite on a usage-basis to set up a data structure which supports said suite-

3   based, usage based licensing and to use said data structure to implement usage based licensing,

4   comprising:

5   storing one or more provisioning item data entries in a data structure in a usage-

6   measuring server, each said data entry representing a provisioning item which records the licensing

7   terms of a suite of resources from a plurality of different sources or vendors, each provisioning item

8   data entry containing a pointer to the one or more resources which are available for licensing under

9   said provisioning item data entry;

10   creating and storing a data entry representing an authorization node when a

11   customer who wishes to use the resources in a suite takes a license under the particular provisioning

12   item which records the licensing terms of said suite, and storing a pointer in said authorization node

13   which points to the data structure representing the provisioning item which records the terms of the

14   license said customer took;

15   creating and storing a data entry representing a resource authorization node for each

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16 resource licensed under a license represented by said authorization node and storing a pointer in

17 each said resource authorization node so created that points to the authorization node representing

18 said license;

19 creating a usage data buffer for each said resource authorization node so created

20 and storing a pointer in each said resource authorization node that points to a corresponding usage

21 data buffer which is to be used to store usage data for the resource correponding to said resource

22 authorization node; and

23 storing usage data for each resource licensed under a usage-based suite license in

24 the appropriate usage data buffer;

25 converting said usage data for each resource to metrics which provide an indication

26 of the amount of use of each licensed resource;

27 converting said metric data for use of each resource licensed as part of a suite to

28 CSU units representing the total charges for use or total amount of use of the suite based upon the

29 individual usages of each resource in said suite.

1 4. A process carried out in a usage-measuring server in a system to license resources from

2 different vendors as a suite on a usage-basis to use a data structure in said usage-measuring server

3 to implement usage-based licensing, comprising:

4 storing usage data for each resource licensed under a usage-based suite license in

5 the appropriate usage data buffer; and

6 converting said usage data for each resource to metrics which provide an indication

7 of the amount of use of each licensed resource.

1 5. The process of claim 4 further comprising the step of converting said metric data for use

2 of each resource licensed as part of a suite to CSU units representing the total charges for use or

3 total amount of use of the suite based upon the individual usages of each resource in said suite.

1 6. The process of claim 4 further comprising the step of automatically purging said usage

2 data which was stored before a data determined from either a fixed constant or from configuration

3 data.

1 7. A memory storing data accessible by a server computer, said data defining a data

2 structure which supports usage-based licensing or sale of a suite of resources which are not

3 restricted to resources from the same vendor, said data structure comprising:
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4   one or more resource lists that contain one or more resource data entries

5   representing one or more resources available for usage-based licensing;

6   a pointer in each resource entry which points to a distillation program which, when

7   executed, converts raw usage data for the corresponding resource by a particular customer

8   into one or more items of metric data which summarizes use of said resource;

9   one or more organization data entries which represent vendors which license

10   resources with each organization data entry containing a pointer to a resource list which

11   contains data entries listing said resources said organization licenses and a pointer to one or

12   more provisioning lists which are data entries which contain provisioning item data entries

13   detailing the terms of license or sale of two or more resources comprising a suite of

14   resources to be licensed or sold with no restriction that said resources must come from the

15   same vendor, each provisioning item containing a pointer or pointers to all the resource data

16   entries that are available for sale or usage-based licensing under the terms of said

17   provisioning item;

18   one or more authorization node data entries, each of which represents a suite license

19   or suite sale granted or made under the terms of a particular provisioning item and each of

20   which has a pointer to the provisioning item data entry which records the terms of the suite

21   license or sale;

22   one or more user/licensee and/or purchaser and/or distributor and/or user/distributor

23   data entries representing entities such as individuals, corporations etc. which have purchased

24   a suite of resources or have a suite license to use, sublicense, distribute or both use and

25   distribute or use, distribute and/or sublicense the two or more resources under a suite license

26   or suite sale represented by an authorization node data entry and having at least a pointer to

27   at least one authorization node data entry representing the suite license or sale;

28   two or more resource authorization node data entries associated with each sid

29   authorization node data entry, one for each resource in the suite license or sale represented

30   by said authorization node data entry, each containing a pointer to a resource licensed or

31   sold under the authorization node data entry representing the suite license or sale of the

32   resources to which said two or more resource authorization node data entries correspond,

33   and each said resource authorization node data entry either storing usage data or sales data

34   for the corresponding resource or pointing to a buffer which stores usage or sale data for the

35   corresponding resource by the entity which licensed or purchased said resource.

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1   8. A process to use a data structure in a usage-measuring server in a system to license

2   resources from different vendors as a suite on a usage-basis to collect and process usage data of

3   individual resources of one or more suites in a suite-based, usage-based licensing system,

4   comprising:

5   receiving usage data for use of each resource in each suite licensed by each suite

6   licensee, said usage data collected by agent programs in or coupled to computers of each

7   said suite licensee who is using one or more resources under a suite license;

8   storing the usage data for use of each resource in a suite by each suite licensee in a

9   logically separate buffer dedicated to storing usage data of only that resource by only that

10   licensee;

11   processing said usage data of each buffer stored in step 2 to generate metrics and

12   using said metrics to generate royalty invoices or usage reports.

1   9. A process to collect usage data and use a data structure in a usage-measuring server in a

2   system to license one or more resources as a suite, said resources made available for license by one

3   or more vendors on a usage-basis to collect, store and process usage data of individual resources of

4   one or more suites in a suite-based, usage-based licensing system, comprising:

5   collecting usage data for each resource in a suite by each suite licensee and transmit

6   said usage data directly or indirectly to said usage-measuring server;

7   receiving usage data for use of each resource in each suite licensed by each suite

8   licensee, said usage data collected by agent programs in or coupled to computers of each

9   said suite licensee who is using one or more resources under a suite license;

10   storing the usage data for use of each resource in a suite by each suite licensee in a

11   logically separate buffer dedicated to storing usage data of only that resource by only that

12   licensee;

13   processing said usage data of each buffer stored in step 2 to generate metrics and

14   using said metrics to generate royalty invoices or usage reports.

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